

~~HOBBS OGD~~
~~OCD-HOBBS~~

DEC 14 2011

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM 114990 & NMNM 114992	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Devon Energy Production Company, LP		7. If Unit or CA Agreement, Name and No.	
3a. Address 20 N. Broadway, OKC, OK 73102		8. Lease Name and Well No.: <38987> Fighting Okra 18 Federal Com 1H	
3b. Phone No. (include area code) 405-228-8973		9. API Well No. 30-025-40383	
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 2590' FNL & 330' FWL, Unit E Lot 2 At proposed prod. zone 330' FNL & 330' FWL, Unit D Lot 1		10. Field and Pool, or Exploratory Wildcat Bone Spring	
14. Distance in miles and direction from nearest town or post office* Approximately 19 miles west of Jal, NM.		11. Sec., T. R. M. or Blk. and Survey or Area Section 18 T26S R34E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'		12. County or Parish Lea	
16. No. of acres in lease 2470.16		13. State NM	
17. Spacing Unit dedicated to this well 240 ac			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1809'			
19. Proposed Depth TVD: 9974' MD: 17,276' Pilot Hole: 10,330'		20. BLM/BIA Bond No. on file CO-1104	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3358		22. Approximate date work will start* 01/01/2012	
23. Estimated duration 45 days			

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature Spence Laird	Name (Printed/Typed) Spence Laird	Date 08/10/2011
Title Regulatory Analyst		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date DEC 12 2011
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ 12/20/11

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

dm

HOBBS OCD

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

DEC 14 2011 Revised October 15, 2009

Submit one copy to appropriate

District Office

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-40382 92892		Pool Code 92892		Pool Name WILDCAT BONE SPRING	
Property Code 38987		Property Name FIGHTING OKRA "18" FEDERAL COM			Well Number 1H
OGRID No. 6137		Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.			Elevation 3358.1

Surface Location

U.L. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E 2	18	26 S	34 E	2	2590	NORTH	330	WEST	LEA

Bottom Hole Location If Different From Surface

U.L. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D 1	7	26 S	34 E	1	330	NORTH	330	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
240			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NW CORNER SEC. 7 LAT. = 32.0650321°N LONG. = 103.5174478°W NMSP EAST (FT) N = 388351.63 E = 794077.36 SECTION CORNER LAT. = 32.0505003°N LONG. = 103.5174512°W NMSP EAST (FT) N = 383065.12 E = 794116.26 W/4 CORNER SEC. 18 LAT. = 32.0432369°N LONG. = 103.5174521°W NMSP EAST (FT) N = 380422.77 E = 794135.95	BOTTOM OF HOLE LAT. = 32.0641251°N LONG. = 103.5163828°W NMSP EAST (FT) N = 388024.14 E = 794409.77 SEC 7 T26S, R34E FIGHTING OKRA "18" FEDERAL COM #1H ELEV. = 3358.1 LAT. = 32.0433793°N (NAD83) LONG. = 103.5163868°W NMSP EAST (FT) N = 380477.07 E = 794465.66 SURFACE LOCATION SEC 18 T26S, R34E	NE CORNER SEC. 7 LAT. = 32.0650400°N LONG. = 103.5003697°W NMSP EAST (FT) N = 388394.89 E = 799367.86 SECTION CORNER LAT. = 32.0505071°N LONG. = 103.5003557°W NMSP EAST (FT) N = 383108.02 E = 799412.97 SE CORNER SEC. 18 LAT. = 32.0359987°N LONG. = 103.5003413°W NMSP EAST (FT) N = 377830.11 E = 799458.15	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or selected mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Spence Laird</i> Date: 8/11/11 Printed Name: SPENCE LAIRD 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. MADE BY: DAVID L. JARAMILLO Date of Survey: 11/17/11 Signature and Seal of Professional Surveyor: <i>[Signature]</i> Certificate Number: 11111 AND 11111 PLS 12797 SURVEY NO. 473
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DRILLING PROGRAM

Devon Energy Production Company, LP

Fighting Okra 18 Federal Com 1H

Surface Location: 2590' FNL & 330' FWL, Unit E, Sec 18 T26S R34E, Lea, NM

Bottom hole Location: 330' FNL & 330' FWL, Unit D, Sec 18 T26S R34E, Lea, NM

1. **Geologic Name of Surface Formation**

a. Quaternary Alluvium

2. **Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

Geologic Formation	Depth (TVD)	O/G/W	Penetration Point
a. Fresh Water	300'	Water	2590' FNL & 330' FWL
b. Rustler	903'	Barren	2590' FNL & 330' FWL
c. Salado Salt	1250'	Barren	2590' FNL & 330' FWL
d. Base of Salt	5300'		2590' FNL & 330' FWL
e. Bell Canyon	5301'	Oil	2590' FNL & 330' FWL
f. Cherry Canyon	6352'	Oil	2590' FNL & 330' FWL
g. Brushy Canyon	8367'	Oil	2590' FNL & 330' FWL
h. Avalon/ Top Bone Spring	9580'	Oil	2590' FNL & 330' FWL
i. Horizontal Landing Depth	9980'	Oil	
j. Pilot Hole TD	10,330'	Oil	2590' FNL & 330' FWL

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 960' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 5250' and circulating cement to surface. The pay intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing. All casing is new and API approved.

3. **Casing Program:**

See COA

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17-1/2"	0 - 960 980	13-3/8"	0 - 650	54.5#	LTC STC	K-55
12-1/4"	960 - 5250	9-5/8"	0 - 5250	40#	BTC	HCK-55
8-3/4"	5250 - 10,330 PH	5-1/2"				
8-3/4"	5250 - 17,276	5-1/2"	0 - 9400	17#	LTC	HCP-110
			9400 - 17,276	17#	BTC	HCP-110

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13 3/8"	1.6	3.8	6.3
9 5/8"	1.4	2.3	4.7
5 1/2"	1.8	2.6	3.6

4. Cement Program: (Cement volumes based on at least 25% excess)

Regarding the Pilot Hole: A Whipstock with ~900' of 2 7/8" tubing tailpipe will be cemented in place at ~9400'. The plug back cement will be 450 sacks Class H with 1.18 cuft/sk yield (37% excess).

- 13 3/8" Surface**
- Lead:** 550 sacks (35:65) Poz (Fly Ash):Premium Plus C Cement + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 5% bwow Sodium Chloride + 0.8% bwoc Sodium Metasilicate + 5% bwoc MPA-5 + 101.1% Fresh Water
Yield: 1.97 cf/sack. TOC @ surface.
- Tail:** 250 sacks Premium Plus C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water
Yield: 1.35 cf/sack.
- 9 5/8" Intermediate**
- Lead:** 1400 sacks (50:50) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water
Yield: 2.24 cf/sack. TOC @ surface.
- Tail:** 300 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Water
Yield: 1.38 cf/sack.
- 5 1/2" Production**
- Lead:** 800 sacks (35:65) Poz + 0.2% bwoc Sodium Metasilicate + 1.4% bwoc FL-62 + 0.4% bwoc
Yield: 2.01 cf/sack.
- Tail**
- Lead:** 2350 sacks (50:50) Poz (Fly Ash):Premium Plus C Cement + 1% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 0.4% bwoc R-3 + 103.1% Fresh Water
Yield: 1.28 cf/sack.
- DV TOOL at ~6500'**
- 2nd Stage**
- Lead:** 310 sacks Class C+ 0.125 lbs/sack Cello Flake + 3
6% bwoc Bentonite + 0.4% bwoc FL-52A + 99.3% Fresh Water
Yield: 2.88 cf/sk
- Tail:** 200 sacks (60:40) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.15% bwoc + 63.2% Fresh Water
Yield: 1.35 cf/sk

TOC for All Strings:

Surface: 0'
Intermediate: 0'
Production 4700'

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.

5. Pressure Control Equipment:

The blow out prevention system will consist of a bag type (hydril) preventer, a double ram preventer stack, and a rotating head. Both the hydril and ram stack will be hydraulically operated. Both BOP systems will be rated at 5000psi. The hydril will be tested to 1000psi (high) and 250psi (low). The Hydril preventer on the 13 3/8" surface casing will be tested as a 2000 psi preventer. Prior to drilling out the 9 5/8" intermediate shoe, the ram stack will be nipped up with 4.5" pipe rams installed and will be used in the BOP. Tests on the 5000psi BOP will be conducted per the BLM Drilling Operations Order #2. For 12 1/4" Hole

The ram system will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and hydril, other BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5000 psi WP.

6. Proposed Mud Circulation System

Depth	Mud Wt.	Visc.	Fluid Loss	Type System
0' - 960' 380	8.4 - 9.0	32 - 34	N/C	FW/Gel
960' - 5250'	10	28 - 30	N/C	Brine
5,250' - 17,276'	8.6 - 9.0	28	NC	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

8. Logging, Coring, and Testing Program: See COA

- Drill stem tests will be based on geological sample shows.
- If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- The open hole electrical logging program will be:
 - Total Depth to Intermediate Casing and Gamma Ray. Compensated Neutron - Z Density log with Gamma Ray and Caliper.
 - Total Depth to Surface Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron with Gamma Ray

- iii. No coring program is planned
- iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area; therefore, no H₂S is anticipated to be encountered. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4600 psi and Estimated BHT 135°.

10. Anticipated Starting Date and Duration of Operations:

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Project: Lee Co., New Mexico (Nad 83)
Site: Fighting Okra 18 Fed Com #1H
Well: Fighting Okra 18 Fed Com #1H
Wellbore: Lateral #1
Design: Design #1



DRILLING & MEASUREMENT
SERVICES

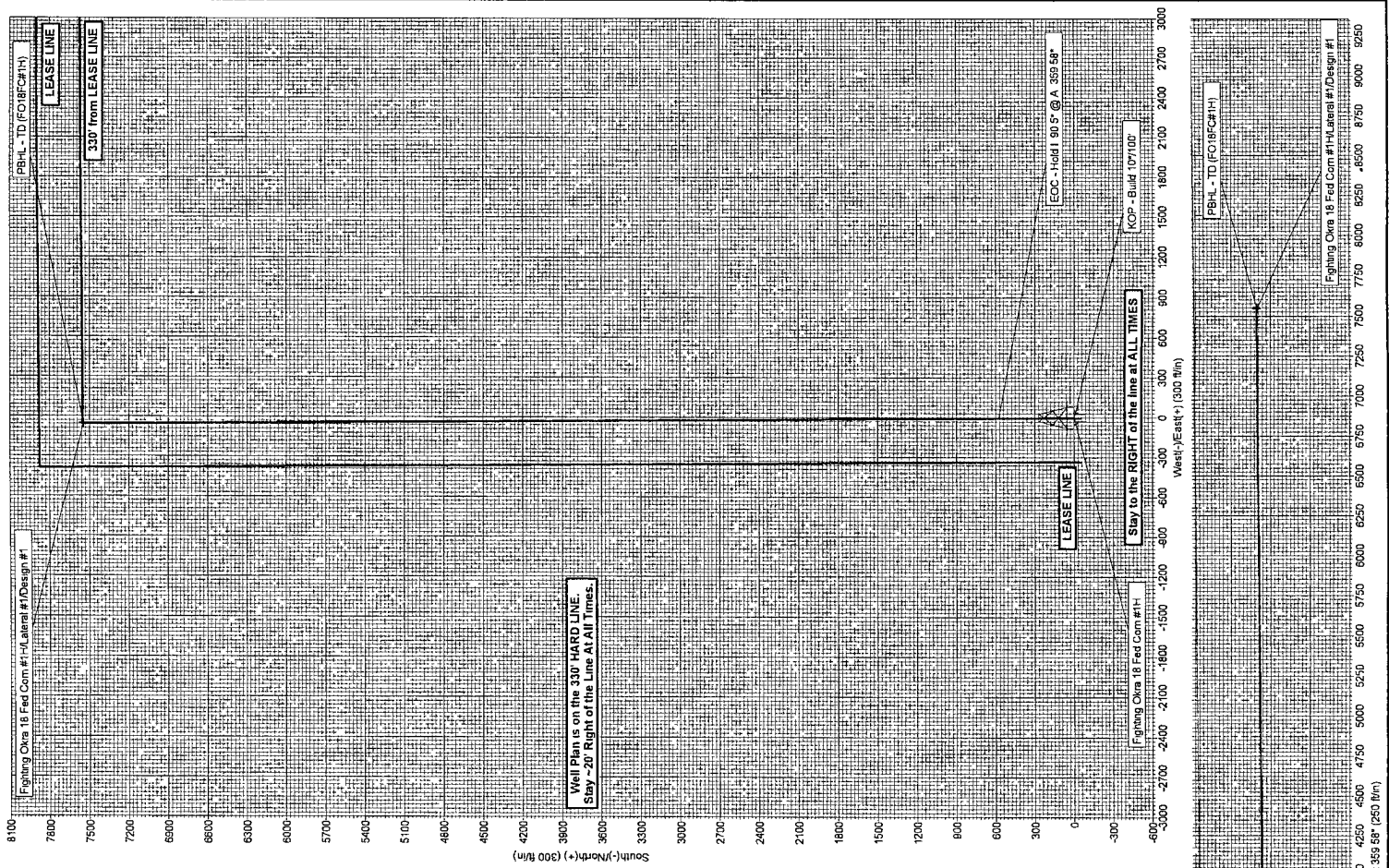
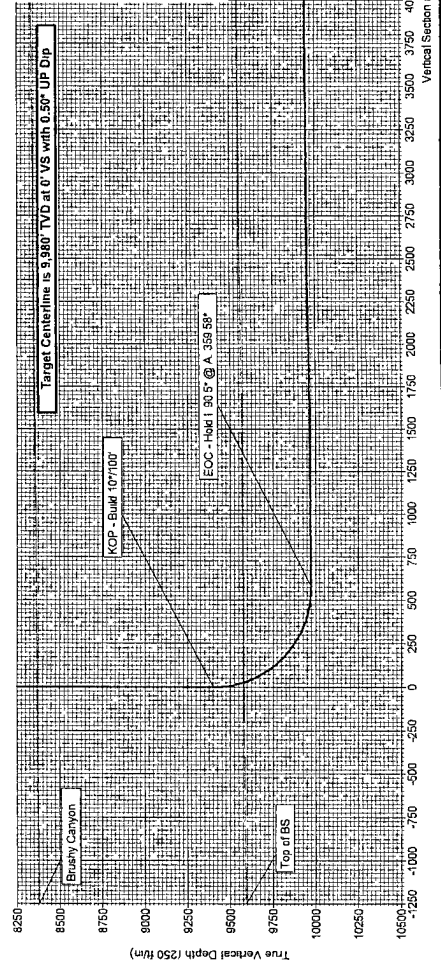
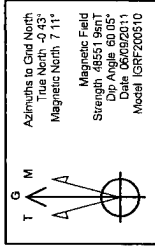
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	D/Leg	T/Face	V/Sec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9402.02	0.00	0.00	9402.02	0.00	0.00	0.00	0.00	0.00
3	17276.82	90.50	359.58	17276.82	0.00	0.00	0.00	0.00	0.00
4	17276.82	90.50	359.58	9914.14	7547.09	-55.89	0.00	0.00	7547.29

ANNOTATIONS		PROJECT DETAILS	
TVD	MD	Geoid System	US State Plane 1983
9402.02	9402.02	Datum	North American Datum 1983
9974.96	10307.03	Ellipsoid	GRS 1980
		Zone	New Mexico Eastern Zone
		System Datum	Mean Sea Level

WELLBORE TARGET DETAILS (MAP COORDINATES AND LAT/LONG)									
Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape	Point
PB-L - TD (FO18FC#1H)	9914.14	7547.09	-55.89	386024.14	794409.77	32° 3' 30.850" N	103° 30' 58.978" W		

WELL DETAILS									
Fighting Okra 18 Fed Com #1H									
Ground Level									
3358.00									
WELL @ 3385.00ft (Original Well Elev)									
+N/S	0.00	+E/W	0.00	Northing	794409.77	Latitude	32° 3' 30.850" N	Longitude	103° 30' 58.992" W
0.00	0.00	0.00	0.00	386024.14	794409.77	32° 3' 30.850" N	103° 30' 58.992" W	Sick	

Plan Design #1 (Fighting Okra 18 Fed Com #1H/Lateral #1)			
Created By	Mike Starkey	Date	14.07.2011
Checked		Date	
Reviewed		Date	
Approved		Date	





Devon Energy Production Co, LP

Lea Co., New Mexico (Nad 83)

Fighting Okra 18 Fed Com #1H

Fighting Okra 18 Fed Com #1H

Lateral #1

Plan: Design #1

Standard Survey Report

09 June, 2011





Cudd Drilling & Measurement Services

Survey Report



Company:	Devon Energy Production Co., L.P.	Local Co-ordinate Reference:	Site: Fighting Okra 18 Fed Com #1H
Project:	Lea Co., New Mexico (Nad:83)	TVD Reference:	WELL @ 3385.00ft (Original Well Elev)
Site:	Fighting Okra 18 Fed Com #1H	MD Reference:	WELL @ 3385.00ft (Original Well Elev)
Well:	Fighting Okra 18 Fed Com #1H	North Reference:	Gnd
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM:2003/21:Single User Db

Project: Lea Co., New Mexico (Nad 83)			
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site: Fighting Okra 18 Fed Com #1H, Sec 18, T-26S, R-34E					
Site Position:		Northing:	380,477.07 ft	Latitude:	32° 2' 36.165 N
From:	Map	Easting:	794,465.66 ft	Longitude:	103° 30' 58.992 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.43 °

Well:	Fighting Okra 18 Fed Com #1H					
Well Position	+N/-S	0 00 ft	Northing:	380,477.07 ft	Latitude:	32° 2' 36.165 N
	+E/-W	0 00 ft	Easting:	794,465.66 ft	Longitude:	103° 30' 58.992 W
Position Uncertainty		0 00 ft	Wellhead Elevation:	3,385.00 ft	Ground Level:	3,358.00 ft

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	06/09/11	7 54	60 05	48,552

Design:		Design #1		
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0 00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0 00	0 00	0 00	359 58

Survey Tool Program		Date - 06/09/11			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	9,300.00	Design #1 (Lateral #1)	NS-GYRO-MS	North sensing gyrocompassing m/s	
9,300.00	17,276.62	Design #1 (Lateral #1)	CUDD MWD	MWD - Standard CUDD MWD	

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
903.00	0.00	0.00	903.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado Salt									
5,301.00	0.00	0.00	5,301.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
6,352.00	0.00	0.00	6,352.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									



Cudd Drilling & Measurement Services

Survey Report



Company:	Devon Energy Production Co., L.P.	Local Co-ordinate Reference:	Site Fighting Okra 18 Fed Com #1H
Project:	Lea Co. New Mexico (Nad 83)	TVD Reference:	WELL @ 3385.00ft (Original Well Elev)
Site:	Fighting Okra 18 Fed Com #1H	MD Reference:	WELL @ 3385.00ft (Original Well Elev)
Well:	Fighting Okra 18 Fed Com #1H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 2003 21 Single User Db

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,367.00	0.00	0.00	8,367.00	0.00	0.00	0.00	0.00	0.00	0.00	
Brushy Canyon										
9,402.02	0.00	0.00	9,402.02	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Build 10°/100										
9,500.00	9.80	359.58	9,499.52	8.36	-0.06	8.36	10.00	10.00	0.00	
9,582.73	18.07	359.58	9,579.75	28.26	-0.21	28.26	10.00	10.00	0.00	
Top of BS										
9,600.00	19.80	359.58	9,596.08	33.86	-0.25	33.86	10.00	10.00	0.00	
9,700.00	29.80	359.58	9,686.75	75.75	-0.56	75.75	10.00	10.00	0.00	
9,800.00	39.80	359.58	9,768.76	132.74	-0.98	132.75	10.00	10.00	0.00	
9,900.00	49.80	359.58	9,839.63	203.11	-1.50	203.12	10.00	10.00	0.00	
10,000.00	59.80	359.58	9,897.20	284.72	-2.11	284.73	10.00	10.00	0.00	
10,100.00	69.80	359.58	9,939.73	375.08	-2.78	375.09	10.00	10.00	0.00	
10,200.00	79.80	359.58	9,965.92	471.46	-3.49	471.47	10.00	10.00	0.00	
10,300.00	89.80	359.58	9,974.98	570.92	-4.23	570.93	10.00	10.00	0.00	
10,307.03	90.50	359.58	9,974.96	577.95	-4.28	577.96	9.99	9.99	0.00	
EOC Hold 1° 90.5° @ A 359.58										
10,400.00	90.50	359.58	9,974.15	670.91	-4.97	670.93	0.00	0.00	0.00	
10,500.00	90.50	359.58	9,973.28	770.91	-5.71	770.93	0.00	0.00	0.00	
10,600.00	90.50	359.58	9,972.40	870.90	-6.45	870.92	0.00	0.00	0.00	
10,700.00	90.50	359.58	9,971.53	970.89	-7.19	970.92	0.00	0.00	0.00	
10,800.00	90.50	359.58	9,970.66	1,070.89	-7.93	1,070.91	0.00	0.00	0.00	
10,900.00	90.50	359.58	9,969.79	1,170.88	-8.67	1,170.91	0.00	0.00	0.00	
11,000.00	90.50	359.58	9,968.91	1,270.87	-9.41	1,270.91	0.00	0.00	0.00	
11,100.00	90.50	359.58	9,968.04	1,370.87	-10.15	1,370.90	0.00	0.00	0.00	
11,200.00	90.50	359.58	9,967.17	1,470.86	-10.89	1,470.90	0.00	0.00	0.00	
11,300.00	90.50	359.58	9,966.30	1,570.85	-11.63	1,570.90	0.00	0.00	0.00	
11,400.00	90.50	359.58	9,965.42	1,670.85	-12.37	1,670.89	0.00	0.00	0.00	
11,500.00	90.50	359.58	9,964.55	1,770.84	-13.11	1,770.89	0.00	0.00	0.00	
11,600.00	90.50	359.58	9,963.68	1,870.83	-13.85	1,870.88	0.00	0.00	0.00	
11,700.00	90.50	359.58	9,962.80	1,970.83	-14.60	1,970.88	0.00	0.00	0.00	
11,800.00	90.50	359.58	9,961.93	2,070.82	-15.34	2,070.88	0.00	0.00	0.00	
11,900.00	90.50	359.58	9,961.06	2,170.81	-16.08	2,170.87	0.00	0.00	0.00	
12,000.00	90.50	359.58	9,960.19	2,270.81	-16.82	2,270.87	0.00	0.00	0.00	
12,100.00	90.50	359.58	9,959.31	2,370.80	-17.56	2,370.87	0.00	0.00	0.00	
12,200.00	90.50	359.58	9,958.44	2,470.79	-18.30	2,470.86	0.00	0.00	0.00	
12,300.00	90.50	359.58	9,957.57	2,570.79	-19.04	2,570.86	0.00	0.00	0.00	
12,400.00	90.50	359.58	9,956.70	2,670.78	-19.78	2,670.85	0.00	0.00	0.00	
12,500.00	90.50	359.58	9,955.82	2,770.77	-20.52	2,770.85	0.00	0.00	0.00	
12,600.00	90.50	359.58	9,954.95	2,870.77	-21.26	2,870.85	0.00	0.00	0.00	
12,700.00	90.50	359.58	9,954.08	2,970.76	-22.00	2,970.84	0.00	0.00	0.00	
12,800.00	90.50	359.58	9,953.21	3,070.75	-22.74	3,070.84	0.00	0.00	0.00	
12,900.00	90.50	359.58	9,952.33	3,170.75	-23.48	3,170.84	0.00	0.00	0.00	
13,000.00	90.50	359.58	9,951.46	3,270.74	-24.22	3,270.83	0.00	0.00	0.00	
13,100.00	90.50	359.58	9,950.59	3,370.73	-24.96	3,370.83	0.00	0.00	0.00	
13,200.00	90.50	359.58	9,949.71	3,470.73	-25.70	3,470.82	0.00	0.00	0.00	
13,300.00	90.50	359.58	9,948.84	3,570.72	-26.44	3,570.82	0.00	0.00	0.00	
13,400.00	90.50	359.58	9,947.97	3,670.72	-27.18	3,670.82	0.00	0.00	0.00	
13,500.00	90.50	359.58	9,947.10	3,770.71	-27.92	3,770.81	0.00	0.00	0.00	
13,600.00	90.50	359.58	9,946.22	3,870.70	-28.66	3,870.81	0.00	0.00	0.00	
13,700.00	90.50	359.58	9,945.35	3,970.70	-29.41	3,970.80	0.00	0.00	0.00	
13,800.00	90.50	359.58	9,944.48	4,070.69	-30.15	4,070.80	0.00	0.00	0.00	
13,900.00	90.50	359.58	9,943.61	4,170.68	-30.89	4,170.80	0.00	0.00	0.00	
14,000.00	90.50	359.58	9,942.73	4,270.68	-31.63	4,270.79	0.00	0.00	0.00	



Cudd Drilling & Measurement Services

Survey Report



Company:	Devon Energy Production Co. LP	Local Co-ordinate Reference:	Site: Fighting Okra 18 Fed Com #1H
Project:	Lea Co - New Mexico (Nad 83)	TVD Reference:	WELL @ 3385.00ft (Original Well Elev)
Site:	Fighting Okra 18 Fed Com #1H	MD Reference:	WELL @ 3385.00ft (Original Well Elev)
Well:	Fighting Okra 18 Fed Com #1H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 2003.21 Single User Db

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
14,100.00	90.50	359.58	9,941.86	4,370.67	-32.37	4,370.79	0.00	0.00	0.00	
14,200.00	90.50	359.58	9,940.99	4,470.66	-33.11	4,470.79	0.00	0.00	0.00	
14,300.00	90.50	359.58	9,940.12	4,570.66	-33.85	4,570.78	0.00	0.00	0.00	
14,400.00	90.50	359.58	9,939.24	4,670.65	-34.59	4,670.78	0.00	0.00	0.00	
14,500.00	90.50	359.58	9,938.37	4,770.64	-35.33	4,770.77	0.00	0.00	0.00	
14,600.00	90.50	359.58	9,937.50	4,870.64	-36.07	4,870.77	0.00	0.00	0.00	
14,700.00	90.50	359.58	9,936.62	4,970.63	-36.81	4,970.77	0.00	0.00	0.00	
14,800.00	90.50	359.58	9,935.75	5,070.62	-37.55	5,070.76	0.00	0.00	0.00	
14,900.00	90.50	359.58	9,934.88	5,170.62	-38.29	5,170.76	0.00	0.00	0.00	
15,000.00	90.50	359.58	9,934.01	5,270.61	-39.03	5,270.76	0.00	0.00	0.00	
15,100.00	90.50	359.58	9,933.13	5,370.60	-39.77	5,370.75	0.00	0.00	0.00	
15,200.00	90.50	359.58	9,932.26	5,470.60	-40.51	5,470.75	0.00	0.00	0.00	
15,300.00	90.50	359.58	9,931.39	5,570.59	-41.25	5,570.74	0.00	0.00	0.00	
15,400.00	90.50	359.58	9,930.52	5,670.58	-41.99	5,670.74	0.00	0.00	0.00	
15,500.00	90.50	359.58	9,929.64	5,770.58	-42.73	5,770.74	0.00	0.00	0.00	
15,600.00	90.50	359.58	9,928.77	5,870.57	-43.47	5,870.73	0.00	0.00	0.00	
15,700.00	90.50	359.58	9,927.90	5,970.56	-44.22	5,970.73	0.00	0.00	0.00	
15,800.00	90.50	359.58	9,927.03	6,070.56	-44.96	6,070.72	0.00	0.00	0.00	
15,900.00	90.50	359.58	9,926.15	6,170.55	-45.70	6,170.72	0.00	0.00	0.00	
16,000.00	90.50	359.58	9,925.28	6,270.55	-46.44	6,270.72	0.00	0.00	0.00	
16,100.00	90.50	359.58	9,924.41	6,370.54	-47.18	6,370.71	0.00	0.00	0.00	
16,200.00	90.50	359.58	9,923.54	6,470.53	-47.92	6,470.71	0.00	0.00	0.00	
16,300.00	90.50	359.58	9,922.66	6,570.53	-48.66	6,570.71	0.00	0.00	0.00	
16,400.00	90.50	359.58	9,921.79	6,670.52	-49.40	6,670.70	0.00	0.00	0.00	
16,500.00	90.50	359.58	9,920.92	6,770.51	-50.14	6,770.70	0.00	0.00	0.00	
16,600.00	90.50	359.58	9,920.04	6,870.51	-50.88	6,870.69	0.00	0.00	0.00	
16,700.00	90.50	359.58	9,919.17	6,970.50	-51.62	6,970.69	0.00	0.00	0.00	
16,800.00	90.50	359.58	9,918.30	7,070.49	-52.36	7,070.69	0.00	0.00	0.00	
16,900.00	90.50	359.58	9,917.43	7,170.49	-53.10	7,170.68	0.00	0.00	0.00	
17,000.00	90.50	359.58	9,916.55	7,270.48	-53.84	7,270.68	0.00	0.00	0.00	
17,100.00	90.50	359.58	9,915.68	7,370.47	-54.58	7,370.68	0.00	0.00	0.00	
17,200.00	90.50	359.58	9,914.81	7,470.47	-55.32	7,470.67	0.00	0.00	0.00	
17,276.62	90.50	359.58	9,914.14	7,547.09	-55.89	7,547.29	0.00	0.00	0.00	
PBHL - TD (FO18FC#1H)										

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude
Shape									Longitude
PBHL - TD (FO18FC#1H)	- plan hits target center	0.00	0.00	9,914.14	7,547.09	-55.89	388,024.14	794,409.77	32° 3' 50.850 N
	- Point								103° 30' 58.978 W

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
5,500.00	5,500.00	9 5/8"	9-5/8	12-1/4



Cudd Drilling & Measurement Services
Survey Report



Company:	Devon Energy Production Co. L.P.	Local Co-ordinate Reference:	Site: Fighting Okra 18 Fed Com #1H
Project:	Lea Co. New Mexico (Nad, 83)	TVD Reference:	WELL @ 3385 00ft (Original Well Elev)
Site:	Fighting Okra 18 Fed Com #1H	MD Reference:	WELL @ 3385 00ft (Original Well Elev)
Well:	Fighting Okra 18 Fed Com #1H	North Reference:	Gnd
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 2003.21 Single User Db

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
903 00	903.00	Rustler		-0 50	0 00	
1,250.00	1,250 00	Salado Salt		-0 50	0 00	
5,301 00	5,301 00	Bell Canyon		-0 50	0 00	
6,352 00	6,352 00	Cherry Canyon		-0 50	0 00	
8,367 00	8,367 00	Brushy Canyon		-0 50	0 00	
9,582 73	9,580 00	Top of BS		-0 50	0 00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
9,402 02	9,402.02	0 00	0 00	KOP - Build 10°/100°	
10,307 03	9,974 96	577 95	-4 28	EOC - Hold 1 90.5° @ A. 359 58°	

Checked By	_____	Approved By:	_____	Date:	_____
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Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

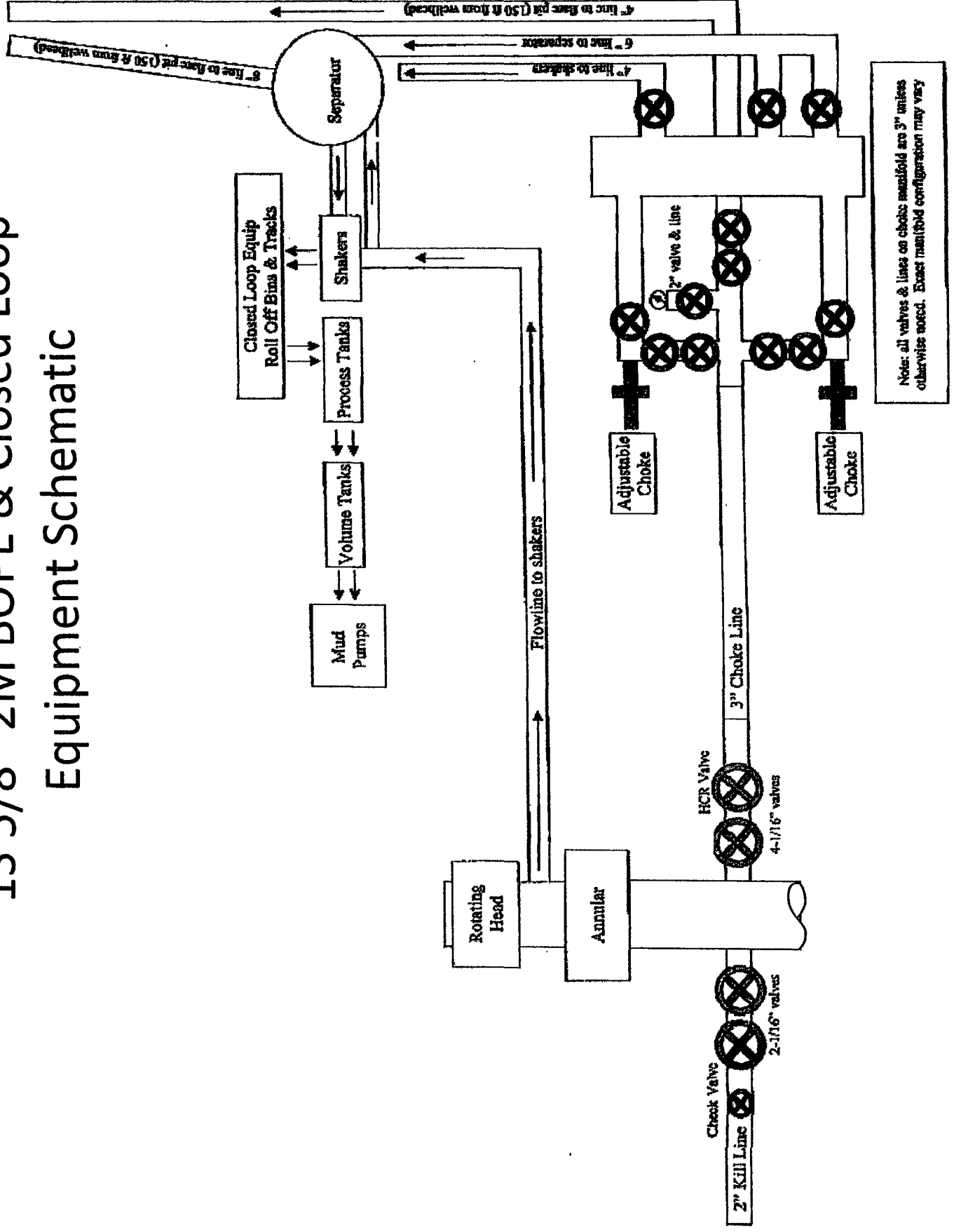
Fighting Okra 18 Federal Com 1H

Surface Location: 2590' FNL & 330' FWL, Unit E, Sec 18 T26S R34E, Lea, NM

Bottom hole Location: 330' FNL & 330' FWL, Unit D, Sec 18 T26S R34E, Lea, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

13 5/8" 2M BOPE & Closed Loop Equipment Schematic



11" 5M BOPE & Closed Loop Equipment Schematic

